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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,102	11/02/2005	Mark Moons	MOON3011/JEK	4203
23364	7590	11/24/2006	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			MUROMOTO JR, ROBERT H	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/555,102	MOONS, MARK	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert H. Muromoto, Jr.	3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/2/2005</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Hishinuma US patent 6,423,165.

Hishinuma discloses a method for making convexities or concavities (folds) on cloth (fabric).

'165 discloses, " First, a cloth or cloths including thermoplastic fibers are cut into parts of the garment, and the parts are sewn in a shape of the garment as illustrated in FIG. 1(a). The thermoplastic fibers are not especially limited as long as it is possible to be heat-set, and among them, polyester fiber is preferable. From a view point of heat-set, cloth including more than 50% of thermoplastic fibers is used, and it is preferred to use cloth including thermoplastic fiber between 70 and 100%.

Then, the garment formed by the cloths 1.1 is overlaid on a thermo-shrinkable cloth 2 (for example, "Teviron" (Registered Trademark) cloth made of polyvinyl chloride and manufactured by Teijin Ltd. is used in the

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embodiment), and they are sewn by means of a sewing machine etc. with stitches of water-soluble threads 3 (see FIG. 1(b). That is, the front side and back side cloths 1,1 of the garment are sewn with the thermo-shrinkable cloth 2 at the same time (col. 6, line 34-col. 6, line 66)."

" The cloths 1,1 of the garment and the heat-shrinkable cloth 2 which have been sewn together are heat-treated under a dry condition so as to permit the thermo-shrinkable cloth 2 to shrink and form convexities and/or concavities in the cloths 1,1 of the garment (col. 7, lines 23-29)."

The combined layers forming a double layer fabric or cloth as recited, nothing in claims limits the fabric to only a single ply cloth.

Since the thermo-shrinkable cloth layer is made from only thermoshrink threads they inherently have thermo-shrinkable threads in both the warp and weft directions and comprise several shrinkable threads as claimed.

'165 states, "The heat-shrinkable cloth 2 used in the present invention has a thermo-shrinkage percentage between **20 and 60%**, preferably at least 30%, for at least one of the weft and warp directions. The thermo-shrinkable cloth 2 using thermo-shrinkable yarns for **both the weft and warp yarns is preferable** since it contracts in both the direction, however, cloth using a thermo-shrinkable 20 **yarn for either the weft or warp yarn and capable of being contracted in either one of the weft and warp directions may be used. The thermo-shrinkage percentage may differ in the warp and weft directions.** Thread using polyvinyl chloride fiber or polyurethane fiber, such as "SPANDEX" (Trademark), for

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example, is suitable for the thermo-shrinkable thread (col. 7, lines 31-44)."

'165 states that the types of concavities and convexities are easily adjusted by overlaying first cloth layer with thermo-shrink layer and changing the stitching densities only at the areas where concavities and convexities are desired (folding zone).

This would result in thermo-shrink threads situated as in claim 5.

The limitations in claims 6-8 are considered to be product-by-process limitations, The MPEP states, "the lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable.

As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed

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**product and the prior art product.** In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983).

All the structural limitations of the claims have been disclosed or taught above. Therefore the applicant must show an unobvious difference between the claimed product and the prior art.

The thermo-plastic polyester weft yarns of first cloth layer are known to have a very little to no thermal shrinkage. The thermo-shrink yarns in '165 are disclosed as having heat shrinkage percentage of about 30%. The thermo-shrink yarns would inherently shrink by at least 5% more than the polyester as claimed.

The reference teaches the dissolving of the water-soluble stitches after heat setting of the garment. The examiner is using the structure of the cloth prior to said dissolving of the water-soluble stitches.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bobby Muromoto  
Patent examiner  
November 20, 2006

A handwritten signature in black ink, appearing to be 'B. Muromoto', located below the typed name and date.